



Scaffolding Comprehension of Informational Text

In Middle School Classes

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Reading Comprehension:

Before Reading
During Reading
After Reading

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Preview - Before Reading Strategies

- Teach the pronunciation and meaning of critical, unknown **vocabulary** words
- Review, teach or activate any necessary **background knowledge**
- **Preview** the text

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Before Reading - Vocabulary

- “direct vocabulary instruction has an impressive track record of improving students’ background knowledge and comprehension of academic content” Marzano, 2001, p. 69
- .97 effect size for direct teaching of vocabulary related to content Stahl & Fairbanks, 1986

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Before Reading - Vocabulary

Attributes of Good Vocabulary Instruction

1. Promote **word learning strategies**
2. Select words that enhance academic success
 - **General Academic Vocabulary** - Generalize across domains (*evidence, observe, investigate, classify, compared to, alternatively, in contrast*)
 - **Domain-Specific Vocabulary** - Specific to a domain or field of study (*suffrage, prokaryote*)
3. Order or group words **semantically**

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Before Reading - Vocabulary

Attributes of Good Vocabulary Instruction

4. Teach words using **explicit instruction**
5. Provide **student-friendly explanations**
6. Teach **parts of words** at the “moment of opportunity”
(*biology - bio = life; autoimmune - auto =self*)
7. Provide **multiple exposures** to terms and meanings

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Before Reading - Vocabulary

Attributes of Good Vocabulary Instruction

7. Expand instruction to “**word relatives**”
(*category, categories, categorization, categorizer*)
8. Have students maintain vocabulary **log**
9. Maintain a **word wall**
10. Provide judicious **review**

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Before Reading - Vocabulary

- Limit number of words given in depth instruction to 4 to 5 words (Robb, 2003)
- Select words that are **unknown**
- Select words that are **critical** to passage understanding
- Select words that students are likely to use in the **future** (Stahl, 1986)
 - General academic vocabulary found used in many domains
 - Domain-specific vocabulary that provides background knowledge

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Selection Vocabulary

- **General academic vocabulary** – Words used in many domains. (*suitcase words*)
Examples: contrast, analyze, observe, evidence, theory
- Application of **general academic vocabulary** differs across domains (Hyland & Tse, 2007; Fisher & Blachowicz, 2013)
 - Math – *Analyze* givens, constraints, and relationships in problem
 - Science – *Analyze* and interpret data
 - English – *Analyze* how author develops character

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Selection of Vocabulary

- **Domain-specific vocabulary** that provides background knowledge
Examples: tariff, acute angle, foreshadowing
- When possible, teach clusters of words that are meaningfully related.
 - Math:** angles, acute, right, obtuse, straight, reflex
 - Science:** cell, nucleus, mitochondrion, vacuole, cell membrane, cell wall, chromosome
 - Social Studies:** colony, ethnic group, migration, society, settlement, settler

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Selection of Vocabulary

- Select **difficult words** that need interpretation.
 - Words not defined within the text
 - Words with abstract referent
 - Words with an unknown concept

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Selection of Vocabulary - Summary

- ❖ Select a **limited number** of words.
- ❖ Select words that are **unknown**.
- ❖ Select words **critical** to passage understanding.
- ❖ Select words that can be used in the **future**.
- ❖ Select **difficult words** that need interpretation.

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Selection - Vocabulary

Reading Level: Eighth Grade Series: Prentice Hall		Passage: Breaker's Bridge Words: *Selected for instruction in manual.
obstacle*	district	amplify
writhing*	gorge	imperial
piers*	miniature	emerged
executioner*	defeated	insult
immortals*	desperation	deposited
emperor	supervising	deadline

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Selection - Vocabulary

Text: <i>American Journey</i> Chapter 11, Section 1 Publisher: Glencoe Jacksonian Democracy			
favorite son	majority	plurality	mudslinging
landslide	nominating convention	tariff	suffrage
nullify	secede		

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Selection - Vocabulary

Text: <i>My World</i> Chapter 4, Section 3 Publisher: Pearson Central America and the Caribbean Today			
* carnival	* Santeria	* diaspora	*microcredit
* ecotourism	indigenous	democracy	parliamentary system
dictatorship	free-trade agreements		

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Organize words for Instruction

- Order words in list to stress relationships between words.
- Group words into semantic clusters to create a scheme. (Marzano & Marzano, 1988; Wixson, 1986)

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Student-friendly Explanations

- **Dictionary Definition**
 - **compulsory** - (1) Employing compulsion; coercive. (2) Required by law or other rule.
- **Student-Friendly Explanation**
 - **Uses known words.**
 - **Is easy to understand.**
 - When something is **compulsory**, it is required and you must do it.

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Before Reading - Vocabulary

- **Dictionary Definition**
 - **compulsory** - (1) Employing compulsion; coercive. (2) Required by law or other rule.
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On-line Dictionaries with Student-friendly Explanations

Collins Cobuild Dictionary of American English
<http://www.collinslanguage.com/free-online-cobuild-ESL-dictionary>
dictionary.reverso.net/english/cobuild

Longman's
<http://www.ldoceonline.com>
(Longman's Dictionary of Contemporary English Online)

Heinle's
<http://www.nhd.heinle17e.com/home.aspx>
(Heinle's Newbury Dictionary for American English)

Merriam Webster's
<http://www.learnersdictionary.com>

(Pronunciation assistance: www.howjsay.com)

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Before Reading - Vocabulary

Step 1. Introduce the word.

- a) Write the word on the board or overhead.
- b) Read the word and have the students repeat the word.
- c) Have students tap out the syllables in the word.
- d) Have students read the word by parts as you loop under the word.
- e) Have students repeat the pronunciation of the word.
(If the word is difficult to pronounce or unfamiliar have the students repeat the word a number of times.)

Introduce the word with me.

*This word is **suffrage**. What word? suffrage*

Tap and say the parts of the word. suf frage

Read the word by parts. suf frage

What word? suffrage

***Suffrage** is a noun.*

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Before Reading - Vocabulary

Step 2. Introduce meaning of word.

Option # 1. Present a student-friendly explanation.

- a) Tell students the explanation. OR
- b) Have them read the explanation with you.

Present the definition with me.

*When someone has **suffrage**, they have the right to vote in an election.*

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Before Reading - Vocabulary

Step 2. Introduce meaning of word.

Option # 2. Have students locate the definition in the glossary or text and break the definition into the critical attributes.

Glossary: **Suffrage** - the right to vote

suffrage

- the right
- to vote

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Before Reading - Vocabulary

Step 2. Introduce meaning of word.

Option # 3. Introduce the word using the meaningful parts in the word.

autobiography
auto = self
bio = life
graph = letters, words, or pictures

hydroelectricity
hydro = water

NOTE: 88% of key science words have Spanish cognates;
1/2 are high frequency words in Spanish

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Common Latin and Greek Roots

aqua	water	Greek	aquarium, aqueduct, aquaculture, aquamarine, aquaplane, aquatic
aud	hearing	Latin	audio, audition, audiovisual, auditorium, audiotape, inaudible
auto	self	Greek	autograph, autobiography, automobile, autocrat, autonomy
astro	star	Greek	astronomy, astrophysics, astrology, astronaut, astronomer, asterisk
biblio	book	Greek	Bible, bibliography, bibliophobia, bibliophile, biblioklept
bio	life	Greek	biography, biology, autobiography, bionic, biotic, antibiotic, biome, biosphere, biometrics
chrono	time	Greek	synchronize, chronology, chronic, chronicle, anachronism
corp	body	Latin	corpse, corporation, corps, incorporate, corporeal, corpulence
demo	the people	Greek	democracy, demography, epidemic, demotic, endemic, pandemic
dic, dict	speak, tell	Latin	dictate, dictation, diction, dictator, verdict, predict, contradict, benediction, jurisdiction, predict, indict, edict
dorm	sleep	Latin	dormant, dormitory, dormer, dormouse, dormition, dormitive
geo	earth	Greek	geology, geologist, geometry, geography, geographer, geopolitical, geothermal, geocentric

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Common Latin and Greek Roots

graph	to write, to draw	Greek	autograph, biography, photograph, telegraph, lithograph
hydro	water	Greek	hydroplane, dehydrate, hydroelectric, hydrogen, hydrophone
ject	throw	Latin	reject, deject, project, inject, injection, projection
logos, logy	study	Greek	geology, astrology, biology, numerology, zoology, technology, psychology, anthropology, mythology
luna	moon	Latin	lunar, lunacy, lunatic, interlunar
meter	measure	Greek	meter, thermometer, diameter, geometry, optometry, barometer, centimeter, symmetry, voltammeter
mega	great, large, big	Greek	megaphone, megalith, megalomania, megatons, megalopolis
min	small, little	Latin	minimal, minimize, minimum, mini, miniature, minuscule, minute, minority
mit, mis	send	Latin	mission, transmit, transmission, remit, missile, submission, permit, emit, emissary
path	feeling, suffering	Greek	pathetic, pathology, apathy, antipathy, sympathy, telepathy, empathy, sociopath
ped	foot	Latin	pedestrian, pedal, peddle, peddler, pedicure, pedometer
philia	love, friendship	Greek	philosopher, Philadelphia, philanthropist, philharmonic, philip

Common Latin and Greek Roots

phono	sound	Greek	phonograph, microphone, symphony, telephone, phonogram, megaphone, phony, euphony, xylophone, phony,
photo	light	Greek	photograph, photosynthesis, telephoto, photometer, photophilia
port	carry	Latin	port, transport, transportation, portable, portage, report
spect	see	Latin	respect, inspection, inspector, spectator, spectacles, prospect
scope	look at	Greek	microscope, telescope, periscope, kaleidoscope, episcopal
sol	sun	Latin	solar, solar system, solstice, solarium, parasol
struct	build, form	Latin	instruct, instruction, construction, reconstruction, destruct, destruction, infrastructure, construe, instrument, instrumental
tele	distant	Greek	telephone, television, telegraph, telephoto, telescope, telepathy, telethon, telegenic
terra	land	Latin	territory, terrestrial, terrace, terrarium, extraterrestrial, Mediterranean Sea, terra cotta, subterranean

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Vocabulary

- Recommended resource for science teachers

The Sourcebook for Teaching Science by Norman Herr

Chapter 1, *Building a Scientific Vocabulary* contains lists of roots, prefixes, suffixes by science domain

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Before Reading - Vocabulary

Step 3. Illustrate the word with examples.

- a. Concrete examples
 - objects
 - acting out
- b. Visual examples
- c. Verbal examples

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Before Reading - Vocabulary

Suffrage Examples

When the United States was founded only white men with property had suffrage.

At the time of the American Civil War, most white men had been granted suffrage.

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Before Reading - Vocabulary

Suffrage Examples

In 1920, women were granted suffrage. The passage of the Nineteenth Amendment granted women the right to vote in all United States elections.



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Before Reading - Vocabulary

Suffrage Examples

The *Voting Rights Act of 1965* outlawed discriminatory voting practices that denied **suffrage** to many African Americans in the United States.



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Before Reading - Vocabulary

Step 4. Check students' understanding.

Option #1. Ask deep processing questions.

Check students' understanding with me.

Why is suffrage a critical aspect of a democracy?

Begin by saying or writing:

Suffrage is a critical aspect of democracy for the following reasons. First, _____

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Before Reading - Vocabulary

Step 4. Check students' understanding.

Option #2. Have students discern between examples and non-examples.

Check students' understanding with me.

Tell me **suffrage** or **not suffrage**.

The right to run for elected office. **not suffrage** Why not?

The right to vote. **suffrage** Why?

The right to develop ads for a candidate. **not suffrage** Why not?

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Before Reading - Vocabulary

Step 4. Check students' understanding.

Option #3. Have students generate their own examples.

Check students' understanding with me.

*Make a list of ways that **suffrage** could be limited or compromised.*

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Before Reading - Vocabulary

suffrage	noun
suffragist	noun



In 1917, all women in the United States did not have **suffrage**, the right to vote. **Suffragists** in New York City collected more than a million signatures of women demanding voting rights. They then paraded down Fifth Avenue with the signature placards.

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Vocabulary Routine

1. Introduce the word.
2. Introduce meaning of word.
3. Illustrate the word with examples (and non-examples).
4. Check understanding.

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linear perspective

Introduce the term and its meaning.

- parallel lines
- recede in the distance
- appear to get closer together and converge
- creates illusion of depth and distance

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linear perspective

Provide examples.



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linear perspective

Provide examples.



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linear perspective

Check understanding.

How did the artist use linear perspective to create depth and distance?



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linear perspective

A Street in Venice by Sargent

Check understanding.

How did the artist use linear perspective to create depth and distance?



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Background Knowledge - What

-what one already knows about a subject.
Stevens, 1980
- ...all the knowledge learners have when entering a learning environment that is potentially relevant for acquiring new knowledge.
Biemans & Simons, 1996

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Background Knowledge - Why

- Background knowledge of text has a major impact on whether or not a reader can comprehend text.
Anderson & Pearson, 1984; Bransford, Stein, & Shelton, 1984; Wilson & Anderson, 1986
- Across grades and reading ability, prior knowledge of subject area and key vocabulary results in higher scores on reading comprehension measures.
Langer, 1984; Long, Winograd, & Bridget, 1989; Stevens, 1980

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Background Knowledge - Why

- Average correlation between person's background knowledge of a given topic and extent to which a person learns new information is .66. Marzano, 2004
- Prior knowledge has a large influence on student performance, explaining 30 to 60% of variance in performance. Docy, Segers, & Buehl, 1999

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Background Knowledge - Why?

Read this paragraph and explain it to your partner.

From a neuroanatomy text (found in *Background Knowledge* by Fisher and Frey)

Improved vascular definition in radiographs of the arterial phase or of the venous phase can be procured by a process of subtraction whereby positive and negative images of the overlying skull are imposed on one another.

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Background Knowledge - Why?

Read this paragraph and explain it to your partner.

(*Background Knowledge* by Fisher and Frey)

How much a reader already knows about the subject is probably the best predictor of reading comprehension. When readers engage with a text for which they have limited background knowledge, the text is much more difficult to understand than one for which they have ample background knowledge. ...research indicates that children continue to spin their wheels when they don't have the background knowledge required to understand much of what they are reading. p2

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Background Knowledge

Approaches

1. **Review** what has been taught
2. **Teach** necessary background knowledge
3. **Activate** background knowledge

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Background Knowledge - Review

Review critical information that has been recently taught

- **Review** is always ASK
- **Review** is always interactive
- **Adjust** lesson based on responses

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Background Knowledge - Review and Teach

When teaching factual information, remember:

Attend
Intend
Rehearse
Retrieve

(Organize)

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Teach Background Knowledge

BIG IDEA

Even a thin slice of background knowledge is useful.

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Teach Background Knowledge

Preparation

1. What is critical?
2. What information would ease acquisition of new knowledge?
3. What information would reduce cognitive overload?
4. What information will increase interest and motivation?

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Teach Background Knowledge

Anchor Instruction in:

- Supplementary Informational Text
- Power-point
- Visuals
- Video

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Chapter 11 The Jackson Era 1824-1845

Section 1 Jacksonian Democracy

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Main Idea

The political system of the United States changed under Andrew Jackson.

As you read, ask yourself:

What changes in the political system of the United States occurred under Andrew Jackson?

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Andrew Jackson

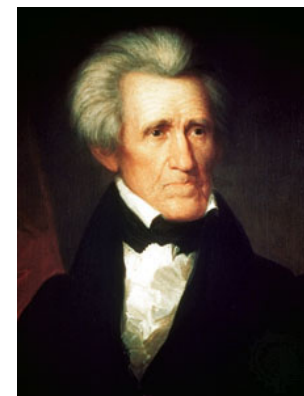
Background knowledge

President

- 7th President
- 1829 - 1837

Early Life

- Parents emigrated from Ireland
- Father died before his birth
- Mother died when he was 14
- Two brothers also died



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Andrew Jackson

Background knowledge

Career - Military

- At 13 joined Continental Army
- Major General of Tennessee Militia
- Led campaign against Creek Indians in Georgia
- In 1815 led military victory over British at the Battle of New Orleans



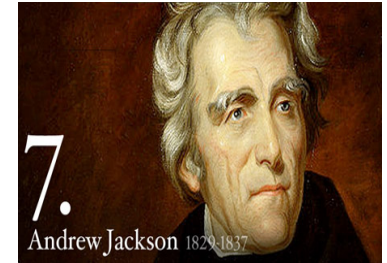
57

Andrew Jackson

Background knowledge

Career - Politician

- Lawyer
- US Representative
- US Senator
- Circuit Judge
- President



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Andrew Jackson

Background knowledge

Personal Life

- Married Rachel Jackson
- Two adopted children
- Owned large cotton plantation with 150 slaves
- Killed man in pistol duel



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Teach Background Knowledge

Anchor in Video Clip

- Select well-crafted video.
 - Appropriate length
 - Major points stressed
 - Matches necessary background knowledge
- Scaffold “information dense videos” (e.g., watch more than one time, provide limited focus for each viewing)
- Opportunity to focus on visual literacy skills. (Cena & Mitchell, 1998)

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Teach Background Knowledge

Anchor in Video Clip - Instructional Procedure

1. **Focus:** Establish a focus for watching the video.
2. **Response:** Ask students to take notes, complete partial notes, or complete a think sheet or other graphic organizer. Tell students that they will be sharing with their partners.
3. **Share:** Have students share their observations with their partners or team.
4. **Discuss:** Lead students in a discussion of the main ideas from video.
5. **Review/Rehearse:** Ask students questions on the critical content.

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Activate Background Knowledge

- **Evidence-based Procedures**
 - Reflection and Recording
 - Anticipation guide
 - Cloze
 - Semantic Mapping
- **Purposes**
 - **activate** background knowledge
 - **assess** entering level of knowledge

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Activate Background Knowledge

Reflection and Recording

1. Have students state, write down, or record what they know about the topic.

What do I already know about this topic?

Carr & Thompson, 1996; Peeck, van dem Bosh & Keupling, 1982; Smith, Readence & Alvermann, 1983; Spires & Dontey, 1998; Walraven & Reitsma, 1993

2. After reflecting and recording, engage students in a group discussion of the topic.

Dole, et. al, 1991; Schmidt & Patel, 1987; King, 1994; Hansen & Pearson, 1983.

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BUT.....

- Teacher-directed instruction focused on information necessary for understanding text, more effective than activating student knowledge and discussing it.

Dole, Valencia, Greer, & Wardrop, 1991

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Activate Background Knowledge

Cloze Procedure

1. Select a self-contained reading passage.
2. Leave first and last sentence and all punctuation intact.
3. Carefully select the words for omission by using a word count formula, such as every fifth word, or other criteria. Delete words that carry meaning, such as nouns, main verbs adjectives, and adverbs.
4. Have students read the entire passage before they fill in blanks.
5. Encourage the students to fill each blank.
6. Give students an appropriate amount of time to complete the task.
7. Prompt students to reread the completed passage.

Kroeger, Burton, and Preston, 2009; Taylor, 1953

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Activate Background Knowledge

Students' background knowledge is highly related to reading comprehension and overall learning. Given that students often have little _____ of the topic, the teacher can frontload passage reading by _____ recently taught information, by teaching _____ background knowledge or by activating background _____.

When introducing background knowledge directly, the instruction can be anchored to a power-point presentation, informational article, visuals, or a carefully selected _____.

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Activate Background Knowledge

Anticipation Guide

1. The teacher reads the chapter and determines the most important ideas that students should gain.
2. These ideas are expressed in statements that are either true or false statements.
3. Before reading the chapter, the students read each statement and indicate if they believe the statement is true or false based on their current background knowledge.
4. After reading the chapter and participating in other learning activities, the students read each statement and indicate if they believe the statement to be true or false based on their expanded knowledge.
5. (Optional) Students rewrite false statements, creating true statements. In the end, the students will have a summary of key ideas.

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Activate Background Knowledge

Anticipation Guide

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Anticipation Guide- Example

Before Study	After study	Statements
		Directions: Mark each statement true or false.
		1. Mohammed, the prophet of Islam, was born more than 500 years after Jesus.
		2. Mohammed believed that there was only one God, Allah.
		3. Mohammed destroyed the idols that were in the temple in Mecca.
		4. The word Islam means remission. Mohammed told his followers that they should seek remission of their sins.
		5. Mohammed, like Jesus, is worshiped by his followers as God.
		<i>Continue on next slide.</i>

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Anticipation Guide- Example

	6. Five times a day, Muslims face the holy city of Medina and pray.
	7. Islam teaches concern for the poor.
	8. It takes many years to become a clergy member in the Islam faith. Few people reach this level.
	9. The Koran, the Muslim's holy book, is written in the original Greek language of Mohammed.

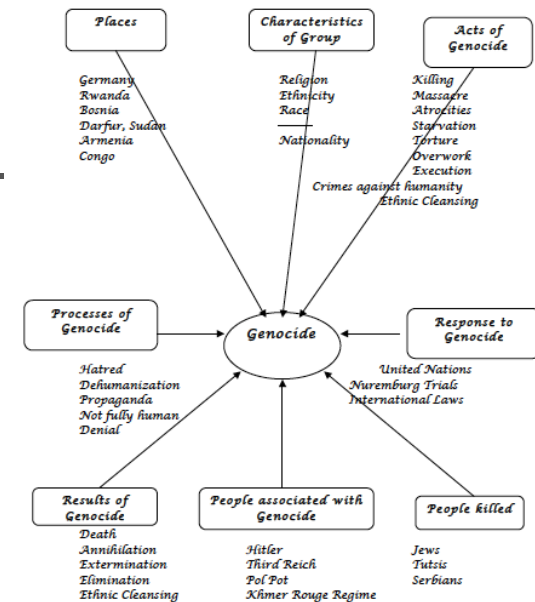
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Activate Background Knowledge

Semantic Mapping

1. Have students generate a list of words that they associate with the concept.
2. Next, have students generate categories for the words.
3. Then, students record words from their list with a matching category.
4. Semantic mapping can be done individually, in pairs, or in cooperative teams.

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Preview - Informational Passage

As the student previews, he/she discovers:

- the topics to be **covered**,
 - the information that will be **emphasized**,
 - how the material is **organized**.
- In addition, background knowledge is **activated**.

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Preview - Informational Passage

- Guide students in previewing the chapter and formulating a topical outline using the **text structure**: title, introduction, headings, subheadings, questions.
- Have students preview the selection independently, with his/her partner, or with team members.

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Preview - Informational Passage

Warm-Up

Before you read a chapter or a section of a chapter in your science, social studies, or health book, Warm-up. Get an idea of the chapter's content by previewing these parts.

BEGINNING

- Title
- Introduction

MIDDLE

- Headings
- Subheadings

END

- Summary
- Questions

Curriculum Associates, *Skills for School Success*

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Jacksonian Democracy

The Election of 1824

Striking a Bargain
The Adams Presidency

The Election of 1828

Jackson Triumphs

Jackson as President

"Old Hickory"
New Voters
The Spoils System
Electoral Changes

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Preview -

During Reading Strategies

- Utilize passage **reading procedures** that provide adequate reading practice
- **Ask appropriate questions** during passage reading
- Have students **generate questions**
- Teach **text structure strategies** that can be applied to passage reading

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Passage Reading Procedures

- What are some disadvantages of “round-robin reading” when the group size is large?

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Passage Reading - Silent Reading

Augmented Silent Reading

- Pose pre- reading question
- Tell students to read a certain amount and to reread material if they finish early
- Circulate and monitor students’ reading
Have individuals whisper-read to you
- Pose post- reading question

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Passage Reading - Choral Reading

Choral Reading

- Read selection with your students
- Read at a moderate rate
- Tell your students, “Keep your voice with mine”
(You may wish to have the students pre-read the material silently before choral reading.)

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Passage Reading - Cloze Reading

Cloze Reading

- Read selection
- Pause on “meaningful” words and have students read the word
OR
Read the first part of the sentence and have students read the rest of the sentence
- Have students read the deleted words

Excellent practice for reading initial part of a chapter or when you need to read something quickly

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Passage Reading - Individual Turns

Individual Turns

- Use with small groups
- Call on an individual student
- Call on students in random order
- Vary the amount of material read

If used with large group,

- Assign paragraphs for preview and practice OR
- Utilize the me or we strategy. When called on, student has the option of saying “we” and asking everyone to join in reading.

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Passage Reading - Partners

Partner Reading

- Assign each student a partner
- **Reader** whisper-reads to partner
 - Narrative - Partners alternate by sentence, page, or time
 - Informational text - Partners alternate by the paragraph (Read - Stop - Respond).
- **Coach** corrects errors.
 - Ask - *Can you figure out this word?*
 - Tell - *This word is _____. What word?*
 - Reread the sentence.*

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Passage Reading - Partners

Alternatives to support lowest readers

- **Option #1** Higher reader reads material. Lower reader in partnership reads same material.
- **Option #2** Lowest reader placed on a triad and reads with another student
- **Option #3** Partners allowed to say “me” or “we”

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Comprehension- Informational Text Reading

- **Read** (a paragraph or a number of related paragraphs)
- **Stop**
- **Respond**
 - answer teacher questions
 - generate questions/answer questions
 - verbally retell content ("Paragraph shrinking")
 - mark text /add notes in the margins
 - take notes
 - map/web content

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During Passage Reading

Read
Stop
Respond

- **Teacher Asks Questions**
- **Students Answer Questions**

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During Passage Reading - Ask Questions

Asking questions. A evidence-based,
time honored procedure

The teacher asks questions to guide
and monitor students' comprehension

(Ambruster, Lehr, & Osborn, 2001; National Reading Panel, 2000; McKeown, Beck, & Blake, 2009))

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During Reading Strategies - Ask Questions

Why do we ask questions on what has been
read?

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During Reading - Ask Questions

The Teacher-Generated Questions

- Divide the material into appropriate segments.
- Develop questions on the content, focusing on the **most important** understanding that students should construct.

OR

Curriculum Questions

- Ask questions provided by the curriculum material.

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Guidelines for Asking Questions

1. Ask **text-dependent** questions
- The student must read the text to respond to the question
2. Creating **better questions**
3. Ask **higher order** questions
- Inferences, predictions, comparisons, summaries
4. Scaffold higher order questions with **foundation** questions on key details
5. Scaffold answers with **sentence starters**
6. Use appropriate **active participation** procedures for asking questions

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During Reading - Text-Dependent Questions

Ask questions that focus on information (evidence) provided in the text.

Students must answer the questions based on passage information NOT on previous experience or personal ideas.

Keep students cognitively in the text... don't draw them out of the text.

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During Reading – Create Better Questions

(Embedded Formative Assessment by Dylan Wiliam)

Original	Reframed
Is carbon a metal?	Why is carbon not a metal?
Is this a sentence or a clause?	Why is this a clause rather than a sentence?
Is slate a metamorphic rock?	Why is slate a metamorphic rock?
Is 23 prime?	Why is 23 prime?

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During Reading – Create Better Questions

(Embedded Formative
Assessment by Dylan Wiliam)

Original	Reframed using comparisons
What is a prime number?	Why is 17 prime and 15 not?
What was life under apartheid like?	How were lives of blacks and whites different under apartheid?
Is a bat a mammal?	Why is a bat a mammal and penguin not?

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During Reading – Create Better Questions

(Embedded Formative
Assessment by Dylan Wiliam)

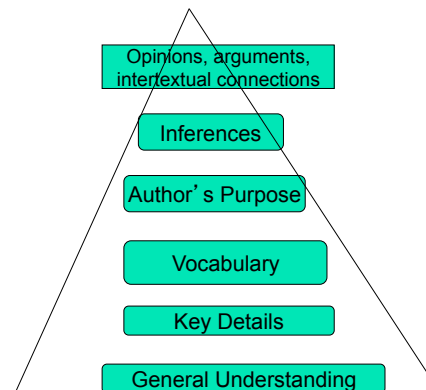
Original Question	Reframed as Statement Agree/Disagree/Why
Are all squares rectangles?	All squares are rectangles.
Do the Senate and the House of Representatives have the same powers?	The Senate and the House of Representatives have the same powers.
Is plywood a natural resource?	Plywood is a natural resource.
Was Andrew Jackson <i>the president for the common man</i> ?	Andrew Jackson was <i>the president for the common man</i> .

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During Reading - Scaffolding

Fisher & Frey, 2012

Scaffold higher order questions by first asking literal, foundation questions.



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During Reading - Scaffold Higher Order Questions

- If the question is a difficult, higher order question, scaffold (support) the students' performance
- Ask lower order (literal) questions **first** to establish a foundation on which higher order responses can be based
- Provide a verbal or written sentence starter

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During Reading - Scaffold Higher Order Questions

Scaffolding Questions

How many political parties were there in 1824?

Four men in the party ran for president. Did Andrew Jackson get a majority of votes?

Which of the 4 candidates received the most votes?

Who did the House of Representatives select as president?

Who helped Adams to be elected as president?

What position in the government was Clay given?

Big Question to be asked:

Why were Adams and Clay accused of making a “corrupt bargain” (stealing the election)?

Sentence Starter: Adams and Clay were accused of making a *corrupt bargain* because.....
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During Reading - Ask Questions

Procedure for asking students questions on text material.

Saying answer to partner (Partners First)

1. Ask a **question**
2. Give students **thinking time or writing time**
3. Provide a verbal or written **sentence starter or paragraph frame**
4. Have students share answers with their **partners** using the sentence starter
5. Call on a student to give answer
6. Engage students in a **discussion**

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During Reading - Ask Questions

Discussion

- Have students discuss responses to question, task, or directive
- Scaffold the discussion with sentence starters

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During Reading - Ask Questions

Discussion sentence starters

Disagreeing

I disagree with _____ because _____.

I disagree with _____. I think _____.

Agreeing

I agree with _____ because _____.

I agree with _____ and I also think _____.

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During Reading - Asks Question

Adapted from presentation by Kate Kinsella, PhD

Structured Discussion

Agreeing

My idea is similar to _____ idea. I think _____

My ideas expand on _____ idea. I think _____

I agree with _____ and want to add _____

Disagreeing

I don't agree with _____ because _____

I have a different perspective from _____. I think _____

My views are different from _____. I believe _____

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During Reading - Ask Questions

Adapted from presentation by Kate Kinsella, PhD

Structured Discussion

Clarifying

Will you please explain _____

What did you mean when you stated _____

Could you please clarify your idea for me.

Paraphrasing

What I hear you saying is _____

So you believe _____

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During Passage Reading

Read
Stop
Respond

- **Students generate questions**
- **Students answer questions**

103



During Reading - Students generate and answer questions

Student-Generated Questions based on Headings and Subheadings

1. Read the heading or subheading.
2. Generate one or two questions .
3. Read the section.
4. Answer the question.

104

Classifying Rocks

Question	Answer
How do you classify rocks?	Rocks are classified by mineral composition, color, and texture.
How are rocks classified?	

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How Rocks Form

Question	Answer
Igneous rocks How do igneous rocks form?	
Sedimentary rocks How do sedimentary rocks form?	
Metamorphic rocks How do metamorphic rocks form?	

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How Rocks Form

Question	Answer
Igneous rocks	Igneous rocks are formed when magma or lava cools.
Sedimentary rocks	
Metamorphic rocks	

107

Why was Poe labeled a "loner"?	- <u>orphaned</u> by three
	- <u>separated</u> from siblings
	- <u>conflict</u> with foster family
	- <u>unable</u> to gain approval of foster father
What turmoil and grief did Poe face?	- <u>lost</u> job
	- <u>plagued</u> with alcoholism & illness
	- <u>wife</u> died of tuberculosis
Why is Poe considered a literary giant?	- <u>considered</u> first modern writer
	- Poe's stories continue to be <u>read</u>

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Student-Generated Questions -

Question-Answer Relationships Taffy Raphael, 1984

- **Right There.** The answer is in the text, and if we pointed at it, we'd say it's "right there!" Often, the answer will be in a single sentence or place in the text, and the words used to create the question are often also in that same place.

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Student-Generated Questions -

Question-Answer Relationships Taffy Raphael, 1984

- **Think and Search.** The answer is in the text, but you might have to look in several different sentences to find it. It is broken up or scattered or requires a grasp of multiple ideas across paragraphs or pages.

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Student-Generated Questions -

Question-Answer Relationships Taffy Raphael, 1984

- **Author and You.** The answer is not in the text, but you still need information that the author has given you, combined with what you already know, in order to respond to this type of question.
- **On My Own.** The answer is not in the text, and in fact you don't even have to have read the text to be able to answer it. (Not text-dependent.)

111



During Passage Reading

Read
Stop
Respond

- Students create main idea statements
- Students respond to teacher or partner questions

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During Reading - Students generate main idea statements

Paragraph Shrinking

1. **Name the who or what.**
(The main person, animal, or thing.)
2. **Tell the most important thing about the who or what.**
3. **Say the main idea in 10 words or less.**

(Optional: Record your main idea sentence.)

(From the PALS program by Fuchs, Mathes, and Fuchs)

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During Reading - Students generate written main idea statements (Secondary Example)

I do it.

Types of Rocks

One type of rock is **igneous** rock. Igneous means “fire-made.” Deep inside earth, rock is heated by the great weight of the rock above pressing down. The rock is heated so much that it melts and becomes the liquid rock called **magma**. Sometimes magma pushes its way through cracks in the bedrock and spreads over the ocean floor. Other times it explodes from the ground as lava from a volcano. More often, magma rises only to earth’s crust where it cools. As magma cools, it forms crystals and becomes igneous rock. Sometimes it cools so quickly that crystals do not form, and the lava turns into volcanic glass, called obsidian. Granite is another common igneous rock.

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During Reading - Students generate written main idea statements (Secondary Example)

Record your main idea sentence

Igneous rock is formed when magma, liquid rock, cools.

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During Reading - Paragraph Shrinking (Secondary Example)

We do it.

The second type of rock is **sedimentary**. Earth builds sedimentary rock layer by layer. Forces such as wind, water, and ice cause rocks to break down into smaller pieces of rock and minerals. This soft material, called sediment, flows into river or sea beds where it is deposited in layers. Over thousands of years, the great weight of the sediment on the top compresses the pieces of the deeper sediment. At the same time, certain chemicals in the water act as a glue that cements the bits and pieces into a solid mass. Thousands or millions of years later, the old sea floor may be thrust up as dry land, exposing the sedimentary rock layering. Sandstone, shale, conglomerate, and limestone are all examples of sedimentary rock.

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During Reading - Paragraph Shrinking

(Secondary Example)

You do it.

The third type of rock is **metamorphic**. The word metamorphic means “changed in form.” Metamorphic rock is formed when igneous and sedimentary rocks are exposed to great heat and pressure. Metamorphic rocks are almost always found deep in young mountain ranges as rocks are folded and compressed beneath other rocks. Slate and marble are examples of metamorphic rock.

From Advanced Skills for School Success published by Curriculum Associates

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9.1 Early Brain Development
The Developing Child
Application of Paragraph Shrinking

1. A baby's brain develops rapidly in the first year of life.
2. When baby is given quality experiences, brain development accelerates.
3. Neural pathways form and control body functions and thinking.
4. The brain uses sensory input to build neural pathways.
5. Most actions of newborns are instinctive reflexes.
6. Baby gains many skills that result for development of brain.

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During Passage Reading

Read
Stop
Respond

- Students “mark” the text
- Students write notes in the margins

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During Reading - Students “mark” the text

1. Number the paragraphs
2. Circle the topic and/or key terms
3. Underline the author's claims or other critical information

120

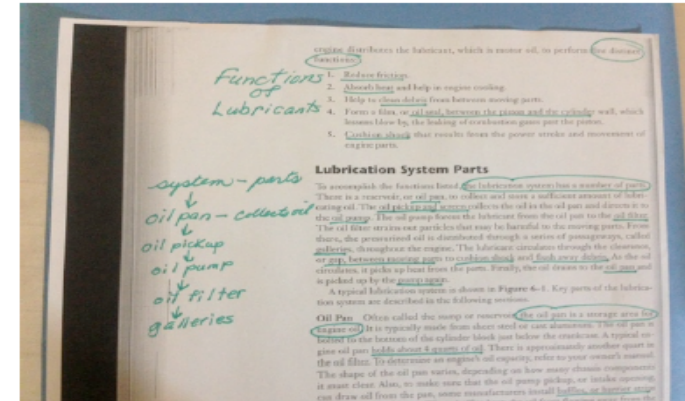
During Reading - Students write notes in the margins

■ Notes in the margin might include:

- A drawing to illustrate a point
- A summary of the content
- Key vocabulary terms and definitions
- Responses to interesting information, ideas, or claims

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The Car Care Book, 4th Edition by Ron Haefner
Marking the Text



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During Passage Reading

Read Stop Respond

- **Students take notes**
- **Students map/web the content**

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During Reading - Students take two column notes

Antarctica	- far south continent
	- South Pole
	- Covered with ice
Weather	- Harsh
	- Below Freezing
	- Windy
Living Things	- Few
	Antarctica, the most southern continent, has very harsh weather and is covered in ice. Few living things survive on Antarctica.

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Definition

Cells are basic building blocks of life.

Tissues are groups of similar cells that do same kind of work.

Organs are structures made up of different types of tissues that all work together.

Body systems are groups of organs that perform a specific function.

Example

nerve cells - carry messages to and from brain

skin cells - cover surface of body

nerve cells → tissue

Heart

- muscle tissue
- nerve tissue
- blood tissue

Digestive system

- function - digest food



After Reading - Graphic Organizers

- After completing the graphic organizer, students:
 - **Teach** the content on the graphic organizer to their partners
 - Use the graphic organizer as a support during **class discussions**
 - Write a **summary** of the content based on the graphic organizer

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Write a Summary - Writing Frames

Antarctica is the coldest continent on the earth.
The land is covered with

_____. The temperature
stays below _____ and the
_____ constantly blow. Because of
these conditions, not many _____ things
are found on this continent.

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Write a Summary - Writing Frames

Summary of Informational Text

Chapter: _____ Topic: _____

- In this section of the chapter, a number of critical points were made about ...
- First, the authors pointed out that...
- This was important because...
- Next, the authors mentioned that...
- Furthermore, they indicated...
- This was critical because...
- Finally, the authors suggested that...

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Write a Summary - Writing Frames

Chapter: *Drifting Continents* Topic: *Wegener's Theory*

- In this section of the chapter, a number of critical points were made about *Alfred Wegener's theory of continental drift*. First, the authors pointed out that *Wegener believed that all the continents were once joined together in a single land mass that he called Pangaea that drifted apart forming the continents of today*. This was important because *it explained why the outline of the continents as they are today fit together*. Next, the authors mentioned that *Wegener argued that there were many pieces of evidence supporting his theory of continental drift*. Furthermore, they indicated that *Wegener used evidence of similar landforms and fossils on different continents to prove his theory*. This was critical because *this evidence could be validated by other scientists*. Finally, the authors suggested that *despite this evidence, other scientists did not accept Wegener's theory because he could not explain the force that pushes and pulls the continents*.

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Write a Summary - Writing Frames

Summary of Opinion Article

- Name of Article:...
- Author: ...
- Topic: ...

- In this article, _____. discusses...
- The author's primary claim is that
- First, she/he states....
- She/he then points out that ...
- In addition, _____, indicates that....
- Finally, she/he conclude.....

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Write a Summary - Writing Frames

Summary of Opinion Article

- Name of Article:...
- Author: ...
- Topic: ...

- In this article, _____. discusses...
- The author's primary claim is that
- First, she/he states....
- She/he then points out that ...
- In addition, _____, indicates that....
- Finally, she/he conclude.....

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Write a Summary - Writing Frames

Name of Article: *The Writing Revolution*
Magazine/Journal: *the Atlantic* (September, 2012)
Author: Peg Tyre
Topic: Writing Instruction

In this article, *Peg Tyre* discusses *writing instruction in today's schools*. The author's primary claim is *that a return to traditional, explicit instruction on the fundamentals of writing could be the answer to poor writing exhibited in schools*. First, she states *that teachers at New Dorp High School determined that their students poor performance was due to the fact that they could not express their ideas on paper*. She then points out that *when New Dorp adopted intense, explicit instruction on the skills of analytic writing, test scores and graduation rates improved*. In addition, Tyre indicates *that thinking, speaking, and reading skills are strengthened through writing instruction*. Finally, she concludes *that a return to traditional writing instruction may be the key to improving the writing skills of failing students*.

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Write a Summary - Strategy

Write down the topic of the summary.

- | | |
|------------------|---|
| List | - Make a list of important ideas. |
| Cross-out | - Cross out any unnecessary or weak ideas. |
| Connect | - Connect ideas that could go in one sentence. |
| Number | - Number the ideas in the order that they will appear in the paragraph. |

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List - Make a list of important ideas.

Penguin's birth

- *Male takes care of egg*
- *Female lays egg*
- *Female leaves*
- *Female spends winter at sea*
- *The water is very cold*
- *Male puts egg on his feet under belly*
- *Male stays on egg for two months*
- *Male doesn't eat*
- *Egg hatches*
- *Male must care for baby*

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Cross-out - Cross out any unnecessary or weak ideas.

Connect - Connect ideas that could go in one sentence.

Penguin's birth

- Male takes care of egg*
- Female lays egg*
- Female leaves*
- Female spends winter at sea*
- The water is very cold*
- Male puts egg on his feet under belly*
- Male stays on egg for two months*
- Male doesn't eat*
- Egg hatches*
- Male must care for baby*

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Number - Number the ideas in the order that they will appear in the paragraph.

Penguin's birth

- 3 *Male takes care of egg*
- 1 *Female lays egg*
- 2 *Female leaves*
- Female spends winter at sea*
- The water is very cold*
- 4 *Male puts egg on his feet under belly*
- Male stays on egg for two months*
- 5 *Male doesn't eat*
- Egg hatches*
- 6 *Male must care for baby*

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Write a summary - Strategy

The birth process of penguins is fascinating and quite different from that of other animals. The female penguin lays an egg. However, the female penguin leaves soon after laying the egg and spends the winter in the sea. Meanwhile the male must take care of the egg. For two months, he places the egg on his feet under his belly. During this time, the male penguin doesn't eat. Even after the baby penguin hatches, the male penguin continues to take care of the infant penguin.

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